

Name: Colleen E. Bryan

Email: colleen.bryan@nist.gov

Title/Affiliation: Research Biologist, Chemical Sciences Division, NIST

Short Bio:

Dr. Colleen Bryan is in the Inorganic Chemical Metrology Group at NIST Charleston, South Carolina. She began her career at NIST in 2003 as a graduate student receiving a M.S. from College of Charleston and Ph.D. from Medical University of South Carolina. Dr. Bryan's research focuses on the roles and impacts of toxic and nutritional trace elements in food and consumer product safety; marine animal health; and mercury metrology. She has extensive experience in method development and analysis of trace elements using ICP-MS, ICP-MS/MS, ID-CV-ICP-MS, and direct combustion AAS. Currently, Dr. Bryan is the inorganic lead for NIST Quality Assurance Programs (QAPs), the Inorganic Environmental Program Coordinator for reference materials, and the Quality Manager for the Inorganic Chemical Metrology Group.

Picture:



Name: Carolyn Q. Burdette

Email: carolyn.burdette@nist.gov

Title/Affiliation: Research Chemist, Chemical Sciences Division, NIST

Short Bio:

Carolyn has been a research chemist in the Chemical Sciences Division at the National Institute of Standards and Technology (NIST) since 2015. She has been involved in the value assignment of numerous clinical, food, and dietary supplement Standard Reference Materials (SRMs) and is a co-coordinator of the Dietary Supplement Laboratory Quality Assurance Program (DSQAP). Her research focuses on the development of analytical techniques (LC-UV, LC-MS and MS/MS) for the determination of marker compounds, vitamins, and vitamin metabolites in the clinical and food/dietary supplement areas, as well as value assignment of NIST Standard Reference Materials (SRMs). Her interests include improving the measurement capabilities of these communities by the use of reference materials and quality assurance programs, and expand into the analytical aspects of environmental and agricultural areas. Carolyn obtained a B.S. in Chemistry from Winthrop University under the guidance of Dr. Cliff Calloway. She was also a 4-year member of the Winthrop Women's Soccer Team. She then earned her Ph.D. in Analytical Chemistry from Clemson University, under Dr. Ken Marcus.

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Name: Pamela M Chu

Email: pamela.chu@nist.gov

Title/Affiliation: Research Chemist / NIST

Short Bio:

Pam is coordinating the Carbon Dioxide Removal and Carbon Capture, Use, and Storage Program in the Material Measurements Laboratory. This program is leveraging unique capabilities and expertise across NIST in measurement sciences and materials characterization to develop the critical metrologies and standards needed for scalable carbon dioxide removal (CDR) and carbon sequestration in building materials. Pam's laboratory research focused on the development and application of analytical spectroscopic techniques to provide reference data, standards and models, and advance chemical measurement science and the fundamental understanding of chemical systems.

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Name: W. Clay Davis

Email: clay.davis@nist.gov

Title/Affiliation: Research Chemist / NIST

Short Bio:

Clay Davis received his B.S. in chemistry from Georgia Southern University and Ph.D. from Clemson University under the direction of Ken Marcus. Clay is currently a Research Chemist in the Biochemical and Exposure Science Group at the National Institute of Standards and Technology (NIST) in Charleston, SC. He first started at NIST as a National Research Council (NRC) Postdoctoral Fellow to develop novel techniques to measure small molecule organometallic species and metalloproteins using atomic and molecular mass spectrometry. Clay's current work sits broadly within analytical chemistry applied to investigating interesting biological questions utilizing elemental, isotopic, and multi-omic applications in proteomics, metabolomics and lipidomics.

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Name: David L. (Dave) Duewer

Email: david.duewer@nist.gov

Title/Affiliation: Research Chemist / NIST

Short Bio:

Dave is a chemical metrologist experienced in chemometrics, experimental design, exploratory data analysis, graphical communications, interlaboratory comparisons, measurement uncertainty, and quality assurance/control. He is an advocate for R&D at interfaces of chemistry, biology, and measurement science. His current interests include better approaches to the: evaluation of chemical purity, demonstration of comparability among reference materials that nominally deliver the same measurands, and summarization of chemical data that have defined measurement uncertainties

Picture:



Name: Regina Easley

Email: regina.easley@nist.gov

Title/Affiliation: Research Chemist, NIST

Short Bio:

Dr. Regina Easley is a Research Chemist at the National Institute of Standards and Technology (NIST) located in Gaithersburg, MD in the Chemical Sciences Division of the Materials Measurement Laboratory. Dr. Easley joined NIST in 2014 as a National Research Council Postdoc. In her role as Research Chemist, she comanages the electroanalytical chemistry laboratory which is responsible for the production of pH Standard Reference Materials (SRMs). Additional research in her laboratory focuses on improving methods to measure the inorganic carbon dioxide system in seawater with an emphasis on pH measurements. These efforts include the development of a Reference Material for oceanographic pH. In addition to her role as Research Chemist, she also serves as an affiliated faculty member at Georgetown University in a newly developed master's degree in Environmental Metrology and Policy (EMAP). This unique program is a collaboration between GU, NIST and the Environmental Protection Agency. Dr. Easley is a graduate of Hampton University (B.S. in chemistry) and obtained her M.S. in organic chemistry from the University of California, Los Angeles, prior to completing her doctoral degree in chemical oceanography at the University of South Florida.

Picture:



Name: Carlos A. Gonzalez

Email: carlos.gonzalez@nist.gov

Title/Affiliation: Division Chief, Chemical Sciences Division, NIST

Short Bio:

Dr. Gonzalez received his B.S. degree in Chemistry (1981) from Universidad Simon Bolivar, Caracas, Venezuela; his M.A. in Physical Chemistry (1985) from Western Michigan University, Kalamazoo, MI; and his Ph.D. in Chemistry from Wayne State University, Detroit, MI.

Dr. Gonzalez was a Postdoctoral Scholar at Carnegie Melon University, Pittsburgh, PA under the mentorship of Prof. John A. Pople, 1998 Nobel Laureate in Chemistry.

Dr. Gonzalez joined NIST in 1997 as a member of the Computational Chemistry Group within the Physical and Chemical Properties Division. Dr. Gonzalez was appointed to the position of Chief, Chemical and Biochemical Reference Data Division on October 1, 2008. In 2012, Dr. Gonzalez was appointed to the position of Chief, Chemical Sciences Division.

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Name: Hugh V. Hayes

Email: hugh.hayes@nist.gov

Title/Affiliation: Research Chemist, Chemical Sciences Division, NIST

Short Bio:

Hugh Hayes has been a Research Chemist at the National Institute of Standards and Technology since 2018 where he focuses on developing analytical methods and reference materials for botanical and vitamin-based dietary supplementation. He also co-leads the Dietary Supplement Laboratory Quality Assurance Program (DSQAP) which supports the measurement needs within the dietary supplement communities. Hugh has also developed multidimensional chromatographic methods for the detection and identification of polycyclic aromatic hydrocarbons (PAHs) in environmental samples. Hugh obtained a B.S. in Chemistry and a M.S. in Forensic Science from Stevenson University. He then obtained a M.S. and a Ph.D. in Chemistry from University of Central Florida. Hugh is also an Adjunct Professor in the Forensic Science graduate program at Stevenson University.

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Name: Jenna R. Klingsick

Email: jenna.klingsick@nist.gov

Title/Affiliation: Research Associate, Chemical Sciences Division, NIST

Short Bio:

Jenna received her B.S. in Marine Biology from Nova Southeastern University and her M.S. in Marine Biology from College of Charleston. Her graduate thesis, in collaboration with NOAA, evaluated metals concentrations in river otters and bottlenose dolphins to determine if river otters could be used as a sentinel species. Jenna has been working at NIST since 2022 as a research associate in the Inorganic Chemical Metrology Group. Her research focuses on analysis of toxic and nutritional elements in food and consumer products.

Picture:



Name: Tod Leighfield

Email: tod.leighfield@noaa.gov

Title/Affiliation: Chemist, NOAA National Ocean Service

Short Bio:

Dr. Tod Leighfield is a chemist at NOAA National Ocean Service's Hollings Marine Laboratory. He develops and applies detection products that empower communities to effectively monitor toxins produced during harmful algal blooms. He has developed detection techniques for algal toxins and has conducted toxicological investigations for a variety of biotoxins. He has assisted in the development of environmental monitoring programs for harmful algae and their toxins around the world.

Picture:



Name: Jacqueline Mann

Email: jacqueline.mann@nist.gov

Title/Affiliation: Physical Scientist, Inorganic Chemical Metrology Group, NIST

Short Bio:

Dr. Jacqueline Mann received her M.S. and Ph.D. in Geology from University of Maryland, College Park under the direction of Dr. Karen Prestegard and Dr. Robert Kelly (NIST). Dr. Mann is a Physical Scientist in the Inorganic Chemical Metrology Group at the National Institute of Standards and Technology (NIST) in Gaithersburg, MD. She has over 20 years of inorganic elemental and isotopic analysis experience at NIST, with 20 of those years involving the certification of Standard Reference Materials (SRMs) including, nuclear forensic, fossil fuel, clinical, and environmental SRMs. Her current work continues to focus on identifying and delivering the isotope metrology tools needed by various stakeholders, including the isotope Metallomics community, and building a comprehensive Isotope Metrology Program within NIST that leverages the relevant metrology expertise across NIST to more effectively meet the isotope metrology needs of the many isotope user communities.

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Name: John L. Molloy

Email: john.molloy@nist.gov

Title/Affiliation: Research Chemist, Chemical Sciences Division, NIST

Short Bio:

John has been a research chemist in the Chemical Sciences Division at the National Institute of Standards and Technology (NIST) since 2007. He came to NIST after obtaining a B.S. in Chemistry from Southwestern University and a Ph.D. in Analytical Chemistry from The University of Texas at Austin. After coming to NIST John studied microheterogeneity in reference materials using microbeam XRF and laser ablation ICP-MS. John is currently serving as the deputy group leader for the Inorganic Chemical Metrology Group and is technical project leader for a wide variety of materials including single element solutions, water reference materials and liquid fuel reference materials.

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Name: Bailey Moritz

Email: bailey.moritz@wwfus.org

Title/Affiliation: Program Officer, Seaweed and Shellfish Farming, World Wildlife Foundation

Short Bio:

As the Program Officer for Seaweed and Shellfish Farming on the WWF-US Aquaculture team, Bailey supports the seaweed industry in reducing barriers to growth and advancement for climate gains. Her current region of focus is the Eastern Pacific to the North Atlantic. She oversees grants to community organizations and research institutes focused on projects ranging from the ecosystem services of seaweed and shellfish farming to installing demonstration farms in new communities. She develops workshops aimed at driving new markets for seaweed, including as a livestock feed and alternative packaging material, bringing together stakeholders across the respective value chains.

Bailey brings 10 years of marine science, education, and aquaculture experience. Prior to WWF, Bailey ran a commercial kelp nursery and a research-scale scallop farm in Maine. She has worked on seaweed farming projects in coastal communities in Madagascar and Belize as part of her graduate studies. Her research centered on a women's association developing new seaweed-based products. She holds a BA in Earth & Oceanographic Science from Bowdoin College and a Professional Science Masters in Ocean Food Systems from the University of New England.

Picture:



Name: Melissa M. Phillips

Email: melissa.phillips@nist.gov

Title/Affiliation: Research Chemist, Chemical Sciences Division, NIST

Short Bio:

Melissa has been a research chemist in the Chemical Sciences Division at the National Institute of Standards and Technology (NIST) since 2008. She has been involved in the value assignment of numerous food and dietary supplement Standard Reference Materials (SRMs) and is a co-coordinator of the Food Nutrition and Safety Measurements Quality Assurance Program (FNSQAP), the Food Reference Materials Program, and the NIST Food Safety Program. Her interests include development of new analytical methods for the determination of marker compounds, vitamins, and contaminants in foods and dietary supplements, and improving the measurement capabilities of the food and dietary supplement communities using reference materials and quality assurance programs. Melissa obtained a B.S. in Chemistry, an M.S. in Forensic Chemistry, and a Ph.D. in Analytical Chemistry from Michigan State University. Melissa is chair of the AOAC INTERNATIONAL Official Methods Board and is a fellow of AOAC INTERNATIONAL.

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Name: Catherine (Kate) Rimmer

Email: catherine.rimmer@nist.gov

Title/Affiliation: Organic Chemical Metrology Group Leader, NIST

Short Bio:

Kate Rimmer received her B.A. in Chemistry and Anthropology at the University of Vermont and her Ph.D. in Analytical Chemistry from Florida State University. She joined NIST as a National Research Council Postdoctoral Fellow. Kate has spent her career working to improve analytical separations, designing and characterizing reference materials, and running interlaboratory testing. She also has a passion for chemical education and science policy. Currently Kate serves as the group leader for the Organic Chemical Metrology Group in the Chemical Sciences Division at NIST.

Picture:



Name: Jason F. Waters

Email: jason.waters@nist.gov

Title/Affiliation: Oceanographer, Chemical Sciences Division, NIST

Short Bio:

Jason has been an oceanographer in the Chemical Sciences Division at the National Institute of Standards and Technology (NIST) since 2007. He came to NIST as a Postdoctoral Researcher after obtaining his B.S. in Geology and Chemistry at Virginia Tech and a Ph.D. in Marine and Atmospheric Chemistry from the University of Miami. Jason presently serves as the technical project leader for pH, ion activity, and high-purity inorganic reference materials. Jason is also part of a team of NIST researchers actively working to develop seawater reference materials for the inorganic carbon dioxide system and for the measurement of seawater pH.

Name: Michael R. Winchester

Email: mwinchester@nist.gov

Title/Affiliation: Inorganic Chemical Metrology Group Leader, NIST

Short Bio:

Dr. Michael Winchester currently leads the Inorganic Chemical Metrology Group in the Chemical Sciences Division of the National Institute of Standards and Technology (NIST), having been at NIST for more than 30 years. This group is responsible for around 700 Standard Reference Materials (SRMs) that are critical to industry, science, and technology. The group also has vigorous research efforts in measurement approaches for nanoparticles, isotopes, and chemical oceanographic parameters. He is also the current Chair of the Inorganic Analysis Working Group (IAWG) of the international Consultative Committee for Amount of Substance in Chemistry and Biology (CCQM) located at the International Bureau of Weights and Measures in Paris (BIPM). Finally, he serves as the Convenor of Working Group 10 (Terminology) of ISO/TC334 Reference Materials.

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Name: Lee L. Yu

Email: lee.yu@nist.gov

Title/Affiliation: Research Chemist, Chemical Sciences Division, NIST

Short Bio:

Lee joined the Inorganic Chemical Metrology Group of the National Institute of Standards and Technology in Gaithersburg, Maryland after obtaining a Ph.D. in Chemistry from the University of Missouri under the guidance of S. Roy Koirtyohann. He is experienced with trace-level elemental metrology. His research interests include high-accuracy chemical metrology and hyphenated techniques, especially separation and elemental detection techniques, for health markers in specimens of environmental and biological importance. He is the technical project leader for the development of several critical clinical and environmental standard reference materials (SRM) including SRM 3232 Kelp Powder (*Thallus laminariae*).

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